Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

best stone in the quarries is interstratified with beds of unsalable material, which naturally interfere with the economy of working.

Slate has been quarried in two different areas in Maryland, known as the Peach Bottom district and Ijamsville. The former district is the only one in which quarrying is now actively carried on. From this district a good quality of slate is obtained. The output has shown a slight decrease since 1894, when it reached its maximum importance.

E. R. BUCKLEY.

Fifteenth Annual Report of the State Geologist (*New York*) *for the Year 1895*, Vol. I. JAMES HALL, State Geologist, Albany, 1898.

THIS report, published in a ponderous volume of 738 pages with broad margins, large type and heavy paper, is particularly unwieldy, and would be far more convenient for the student were it issued in a size and form conformable with the preceding reports of the survey. It is particularly aggravating to the librarian to have a continuous series of reports which should be kept together upon his shelves vary so greatly in size. The 1894 report and those preceding it are convenient sized octavo volumes, while this 1895 report is a great book standing fourteen inches high, although the matter contained, page for page, is about equivalent to that in the earlier reports. The edition of the report, issued as a part of the regents' report of the New York State Museum, is printed upon thinner paper, and has the margins trimmed down so that it is a more convenient size, but even that is considerably larger than the preceding reports of the survey.

The criticism upon the style of publication, however, cannot be extended to the contents of the volume as each one of the papers communicated is a valuable addition to the literature of New York geology, and many of them are of more than local interest. Each of the papers will be briefly noticed, much of what follows being taken from the "Synopsis of Results" by the state geologist upon pages 11–26 of the report.

Two paleontologic papers, both by James Hall, (1) "A Discussion of Streptelasma and Allied Genera of Rugosa Corals," and (2) "The Paleozoic Hexactinellid Sponges Constituting the Family Dictyospongidæ," are announced in the synopsis of the report but do not appear. However, since this volume is marked Volume I on the titlepage, it is possible that another part containing these papers is contemplated.

1. *The Stratigraphic and Faunal Relations of the Oneonta Sandstones and Shales, the Ithaca and Portage Groups in Central New York.* By J. M. CLARKE. Pp. 27–81, plates I–VII and two maps. "This report presents a revision and summary of observations previously made by the same author with reference to the position of the Oneonta sandstones and their extent westward from the Chenango River, and adds thereto more recent data bearing upon the passage of the Ithaca fauna in the region of its highest development in Cortland and western Chenango counties into the typical fauna of the Portage group."

"The *Portage group* is a series of arenaceous deposits representing the geological time which elapsed from the close of the Hamilton period (including the Tully limestone and a portion of the Genesee slate when present) to the opening of the Chemung period. The typical and unmixed fauna of its westerly sections has little organic relation to the proper fauna of the Hamilton shales, the Chemung fauna succeeding, or the Ithaca faunas adjoining on the east. It is an exotic fauna, evidently derived from the west and making its .first appearance in the Genundewah limestone of the Genesee slates. It is the *Naples fauna.*"

"The fauna of the central and east-central sections is an indigenous fauna, and its organic composition stands in the closest relation to the fauna of the Hamilton group, but in its later manifestations assumes many characters of the Chemung fauna. In the Chenango Valley and eastward the upper portion of the deposits of this age is represented by the Oneonta group with a very sparse fauna and well-characterized strata. In Chenango county they replace the higher beds bearing the Ithaca fauna."

2. *The Classification and Distribution of the Hamilton and Chemung Series of Central and Eastern New York.* By C. S. PROSSER. Pp. 83–222, plates I–XIII and one map. The investigations described in this report were undertaken in order to trace the boundaries of the Oneonta group of sandstones and shales and to elucidate as far as possible the division line between the Hamilton group and the overlying strata. This latter is a perplexing problem because east of the Chenango River the Tully limestone and Genesee slate are wanting and the sandy shales of the Hamilton group pass upward into those of the Ithaca group with slight lithologic changes and with alterations of

the fauna so gradual as to be perceptible only upon very careful observation. It is shown that the more or less barren Sherburne sandstones separate the faunas of the Hamilton and Ithaca groups, and represents the beds which have been designated as Lower Portage in western New York. The correctness of this correlation is shown by the discovery of the typical Tully limestone species *Hypothyris venustula* = *H. cuboides* just below the Sherburne sandstone near Noblesville in Otsego county very much farther east than this species has been previously found.

The results of Prosser's investigation necessitate the changing of the upper boundary of the Hamilton formations from five to fifteen miles further south than the similar line on the geologic map recently published by the Geological Survey of New York.

3. *The Stratigraphic Position of the Portage Sandstones in the Naples Valley and the Adjoining Region.* By D. D. LUTHER. Pp. 223–236, plates I–II and one map. The purpose of the investigation described in this paper was to ascertain the dividing line between the Portage and the overlying Chemung group in western New York. The section of the Portage series in the Naples Valley is described in detail, and the Portage sandstone which marks the upper limits of the series is shown to lie at an elevation of 600 feet above the base of the series. With the data derived from the study of the Naples section the Portage sandstone is traced eastward to Seneca Lake and westward to Lake Erie.

4. *The Economic Geology of Onondaga County, New York.* By D. D. LUTHER. Pp. 237–303, plates I–XXI and one map. In this paper the rock formations of the county, from the Clinton group below to the Portage shales above, are discussed in their proper order of succession. While attention is given to the geologic character and distribution of each formation, the especial value of the report consists in its exhaustive treatment of the most important economic products of the county, viz., salt, soda-ash, gypsum, hydraulic cement and quarry stone.

5. *The Structural and Economic Geology of Erie County.* By I. P. BISHOP. Pp. 305–392, plates I–XVI, figures 1–6. This paper opens with a brief account of the topography of the region, after which the stratigraphic succession is discussed at considerable length. The formations present extend from the Salina group at the bottom to the Portage group at the top. The superficial deposits are discussed under

the head, "Quaternary Geology." The economic products of the county which are discussed are building stone, hydraulic cement rock, clays, sand, gravel and natural gas. In connection with the discussion of these products many valuable statistics are given and a considerable amount of space is devoted to the records of wells which have been sunk for natural gas in and about Buffalo.

6. *Geology of Orange County.* By H. Ries. Pp. 393–475, plates I–XLII, with one geological map. In this report the physiography and topography and the stratigraphic, structural and economic geology are ably discussed in detail. The formations present extend from the pre-Cambrian gneiss at the base of the section to the Chemung group at the summit. The economic products described are road materials, brick clays, limestone, lead ore, building stone, flagstone, and iron ores, besides the soils, mineral springs, water power and water supply.

7. *Report on the Crystalline Rocks of St. Lawrence County.* By C. H. Smyth, Jr. Pp. 477–497. The principal purpose of the investigation described in this paper was to determine the distribution of the crystalline limestones, and to collect data bearing upon the question of the origin of the gneisses and the relation existing between these rocks and the limestones.

8. *Report on the Geology of Clinton County.* By H. P. Cushing. Pp. 499–573, plates I–V. This paper discusses the topography and general geology of the region, after which each township is treated separately. The rock series discussed are, (1) gneissic series; (2) limestone series; (3) gabbro series; (4) Paleozoic series, extending from the Potsdam sandstone to the Utica slate; (5) dike series; (6) pleistocene deposits.

9. *Preliminary Report on the Geology of Essex County.* By J. F. Kemp. Pp. 575–614, plates I–XII. This is a continuation of the report by the same author in the 1893 report, and the townships not previously described are taken up for special consideration and the areal geology of each is described so far as it has been determined. Special notice is taken of economic products, namely, of iron ores.

10. *Sections and Thickness of the Lower Silurian Formations on West Canada Creek and in the Mohawk Valley.* By C. S. Prosser and E. R. Cummings. Pp. 615–659, plates I–XII. The writers here consider the Ordovician rock sections exposed in the gorge of the West Canada Creek at Trenton Falls, at Newport and at Little Falls. These

sections have all been previously studied by other observers, some of them frequently, and not always with concordant results. In this paper, both measurements of thickness, and identification of species of fossils have been made with care, and while the conclusions are not in complete harmony with already expressed opinions, they doubtless afford a more precise knowledge of the formations considered.

11. *Report on the Talc Iudustry of St. Lawrence County.* By C. H. SMYTH, JR. Pp. 661–671.

12. *Physical Tests of the Devonian Shales of New York State to Determine their Value for the Manufacture of Clay Products.* By H. REIS. Pp. 673–698. This paper is introduced by a brief discussion of the general, chemical and physical properties of shales. This is followed by some notes upon the manufacture of paving brick and the requisite qualities of such brick. The remaining pages are devoted to a discussion of the extent of the New York shales with tests of samples from typical localities.

13. *The Discovery of Sessila Conularia.* By R. RUEDEMANN. Pp. 699–728, plates I–IV. This important paper is based upon the study of some obscure organisms found in the Utica slate at Dolgeville, N. Y. As a result of the study much light is thrown upon the nature and mode of development of this widespread but little understood organism, *Conularia*, in regard to whose taxonomic position there has been a widely diverse expression of opinion. *Conularia* has usually been referred to the Pteropods, but the results of the investigation recorded in this paper seem to indicate that it should be placed with the Cephalopods.

14. *Notes on Some Crustaceans from the Chemung Group of New York.* By J. M. CLARKE. Pp. 731–738. In this paper are discussed two crustaceans from the Chemung group, (1) *Pephricaris horripilata,* a peculiar, highly ornamented Phyllocarid crustacean, and (2) *Bronteus senescens,* one of the very few trilobites of this formation.

STUART WELLER.

Iron Making in Alabama. By W. B. PHILLIPS. Alabama Geol. Surv., Second Ed., 380 pp. 1898.

It is not often that a state survey finds it necessary to issue a second edition of any of its reports, and the fact that Dr. Phillip's well-known report now appears in new form is a well deserved compliment